THE WEATHER IN SEPTEMBER.

THE weather-review of the U. S. signal-service shows that in September there were two peculiar features, — the low mean temperature, and the deficiency in rainfall. The former was characteristic of all districts east of the Rocky Mountains, though the temperature was above the normal on the Pacific coast. The greatest deficiency in rainfall was in the east Gulf states, but the drought has been severe in various sections. Forest-fires burned over large tracts of land, causing the destruction of much property, especially in New England.

The accompanying chart exhibits the mean pressure, temperature, and wind-directions for the month, and needs no special comment. Nine barometric depressions were observed within the limits of the country, the average course being farther north than is usual. Of these, one was especially severe on the Lakes and in Canada, and one was a well-developed tropical hurricane. The latter was first observed near Martinique, on the 4th: it was very violent in the Caribbean Sea, and caused great destruction in the Bahamas, the loss of life being over fifty. It reached the North Carolina coast on the 11th, and was a destructive gale between Cape Hatteras and Wilmington, but lost its energy on reaching the land, and was wholly dissipated. While the damage from the hurricane was great, good service to commerce was rendered by the frequent warnings issued by the signal-service. The depression which existed on the 21st is worthy of note on account of its unusual track. It moved from Milwaukee, north-west to St. Paul, thence southward over Iowa and Missouri, and was the means of considerably modifying the effect of a cold wave which threatened extensive damage by frost. Five storm-centres are traced on the Atlantic, one of which is a continuation of the second of the August hurricanes described in SCIENCE, No. 37, and which passed over Great Britain. Four vessels only report passing icebergs.

With the approach of fall, frequent frosts are reported, and a frost-chart is a special feature of the review: it gives the limits of the regions in which frosts were experienced in connection with the three leading cold waves of the month. In contrast with this, maximum temperatures of 100° or higher were noted in Arizona, California, Idaho, Kansas, Louisiana, Nevada, Texas, and Utah; the highest being 122°.

The extent of the deficiency in the rainfall is indicated by the following precipitation table: —

Average precipitation for September, 1883.

Districts.	Average for September. Signal-service observations.		Comparison of September, 1883, with the average for several years.
	For several years.	For 1883.	
	Inches.	Inches.	Inches.
New England	3.74	2.50	1.24 deficiency.
Middle Atlantic states	4.14	4.47	0.33 excess.
South Atlantic states	5.94	6.63	0.69 excess.
Florida peninsula	6.76	5.07	1.69 deficiency.
Eastern gulf	4.98	1.05	3.93 deficiency.
Western gulf	4.33	3.17	1.16 deficiency.
Rio Grande valley	4.54	6.31	1.77 excess.
Tennessee	3.48	2.29	1.19 deficiency.
Ohio valley	2.49	1.53	0.96 deficiency.
Lower lakes	3.03	2.82	0.21 deficiency.
Upper lakes	3.98	2.78	1.20 deficiency.
Extreme north-west	2.24	1.01	1.23 deficiency.
Upper Mississippi valley,	3.45	1.67	1.78 deficiency.
Missouri valley	2.60	2.60	Normal.
Northern slope	1.26	0.89	0.37 deficiency.
Middle slope	1.59	3.02	1.43 excess.
Northern plateau	0.78	0.06	0.72 deficiency.
Southern plateau	1.22	0.57	0.65 deficiency.
North Pacific coast	2.13	1.18	0.95 deficiency.
Middle Pacific coast	0.21	0.48	0.27 excess.
South Pacific coast	0.03	0.04	0.01 excess.

The drought in the southern states is a continuation of that of former months, as is shown by the following table of deficiencies in the districts named: —

Districts.	July.	August.	September.	Total.
	Inches.	Inches.	Inches.	Inches.
Tennessee	−0.99	−0.41	−1.19	−2.59
South Atlantic	−0.73	−0.72	+0.69	−0.76
Eastern gulf	−2.54	−1.94	−3.93	−8.41
Western gulf	−1.72	−2.65	−1.16	−5.53

Several instances of great wind-velocity were recorded, the maximum being a hundred and eight miles per hour at Mount Washington on the 9th. At Cape Mendocino, on the Pacific coast, a maximum velocity of ninety-six miles was noted. The singular fact, not unusual, however, in the winter season, is deserving of mention, that the total movement of the air at Delaware Breakwater and Kittyhawk, on the Atlantic coast, is greater than that at the summit of Pike's Peak, the loftiest station in the world.

THE ELECTRIC LIGHT ON THE U. S. FISH-COMMISSION STEAMER ALBATROSS.[1] — II.

As superintendent of the building of the ship, my expectation was, that numerous and intricate problems would present themselves in running the wires about the iron hull, through

[1] Continued from No. 41.